

Interference search
for 10/042, 281 LRC

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	103	(semiconductor and die and heat and (conduit or via or channel or passage) and (material or metal or silver or copper) and heat).clm.	USPAT	OR	OFF	2005/09/06 17:26
L2	189	(semiconductor and die and heat and (conduit or via or channel or passage) and (material or metal or silver or copper) and heat).clm.	US-PGPUB; USPAT	OR	OFF	2005/09/06 17:26
L3	64	(semiconductor and die and heat and (conduit or via or channel or passage) and (material or metal or silver or copper) and heat and (localized or proximate or adjacent)).clm.	US-PGPUB; USPAT	OR	OFF	2005/09/06 17:26
L4	52	(semiconductor and die and heat and (conduit or via or channel) and (material or metal or silver or copper) and heat and (localized or proximate or adjacent)).clm.	US-PGPUB; USPAT	OR	OFF	2005/09/06 17:27
L5	14	(semiconductor and die and heat and (conduit or via or channel) and (material or metal or silver or copper) and heat and (localized or proximate or adjacent) and (dissipate or conduct or transfer)).clm.	US-PGPUB; USPAT	OR	OFF	2005/09/06 17:27

PLUS search
done.
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9/27/04

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Titles of Most Frequently Occurring Classifications of Patents Returned
From A Search of 10042281 on September 27, 2004

5 257/E23.004 (0 OR, 5 XR)
Class 257 : ACTIVE SOLID-STATE DEVICES
257/E23.001 PACKAGING, INTERCONNECTS, AND MARKINGS FOR
SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)
257/E23.003 .Mountings, e.g., nondetachable insulating
substrates (EPO)
257/E23.004 ..Characterized by shape (EPO)

5 257/E23.069 (0 OR, 5 XR)
Class 257 : ACTIVE SOLID-STATE DEVICES
257/E23.001 PACKAGING, INTERCONNECTS, AND MARKINGS FOR
SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)
257/E23.01 .Arrangements for conducting electric current
to or from solid-state body in operation, e.g.,
leads,
terminal arrangements (EPO)
257/E23.023 ..Consisting of soldered or bonded
constructions (EPO)
257/E23.06 ...Leads, i.e., metallizations or lead frames
on insulating substrates, e.g., chip carriers (EPO)
257/E23.068Additional leads joined to metallizations
on insulating substrate, e.g., pins, bumps, wires, flat
leads (EPO)
257/E23.069Spherical bumps on substrate for external
connection, e.g., ball grid arrays (BGA) (EPO)

4 257/E23.101 (0 OR, 4 XR)
Class 257 : ACTIVE SOLID-STATE DEVICES
257/E23.079 ..For integrated circuit devices, e.g., power
bus, number of leads (EPO)
257/E23.08 .Arrangements for cooling, heating, ventilating
or temperature compensation; temperature-sensing
arrangements (EPO)
257/E23.101 ..Selection of materials, or shaping, to
facilitate cooling or heating, e.g., heat sinks (EPO)

3 257/714 (1 OR, 2 XR)
Class 257 : ACTIVE SOLID-STATE DEVICES
257/688 .With large area flexible electrodes in press
contact with opposite sides of active semiconductor
chip
and surrounded by an insulating element, e.g., ring
257/712 .With provision for cooling the housing or its
contents
257/714 ..Liquid coolant

3 257/737 (2 OR, 1 XR)
Class 257 : ACTIVE SOLID-STATE DEVICES
257/734 COMBINED WITH ELECTRICAL CONTACT OR LEAD
257/737 .Bump leads

3 257/E21.508 (0 OR, 3 XR)
Class 257 : ACTIVE SOLID-STATE DEVICES
257/E21.001 PROCESSES OR APPARATUS ADAPTED FOR MANUFACTURE
OR TREATMENT OF SEMICONDUCTOR OR SOLID-STATE
DEVICES OR OF
PARTS THEREOF (EPO)
257/E21.002 .Manufacture or treatment of semiconductor
device (EPO)

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257/E21.04 ..Device having at least one potential-jump
 barrier or surface barrier, e.g., PN junction,
 depletion

257/E21.499 layer, carrier concentration layer (EPO)
 ...Assembling semiconductor devices, e.g.,
 treatment packaging, including mounting, encapsulating, or

257/E21.506 of packaged semiconductor (EPO)
Attaching or detaching leads or other
 or conductive members, to be used for carrying current to

257/E21.507 from device in operation (EPO)
Formation of contacts to semiconductor by
 e.g., use of metal layers separated by insulating layers,
 (EPO) self-aligned contacts to source/drain or emitter/base

257/E21.508Forming solder bumps (EPO)

3 257/E23.068 (0 OR, 3 XR)
 Class 257 : ACTIVE SOLID-STATE DEVICES
 257/E23.001 PACKAGING, INTERCONNECTS, AND MARKINGS FOR
 SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)

257/E23.01 .Arrangements for conducting electric current
 to or from solid-state body in operation, e.g., leads,
 terminal arrangements (EPO)

257/E23.023 ..Consisting of soldered or bonded
 constructions (EPO)

257/E23.06 ...Leads, i.e., metallizations or lead frames
 on insulating substrates, e.g., chip carriers (EPO)

257/E23.068Additional leads joined to metallizations
 on insulating substrate, e.g., pins, bumps, wires, flat
 leads (EPO)

2 52/287.1 (0 OR, 2 XR)
 Class 052 : STATIC STRUCTURES
 52/287.1 CONDUIT, TRIM, OR SHIELD MEMBER AT CORNER

2 52/58 (1 OR, 1 XR)
 Class 052 : STATIC STRUCTURES
 52/58 EXTERIOR-TYPE FLASHING

2 52/631 (0 OR, 2 XR)
 Class 052 : STATIC STRUCTURES
 52/631 CORNER FORMED BY LAMINATE WITH BENT FACING
 SECTION

2 99/348 (2 OR, 0 XR)
 Class 099 : FOODS AND BEVERAGES: APPARATUS
 99/324 COOKING
 99/348 .With stirring

2 101/129 (0 OR, 2 XR)
 Class 101 : PRINTING
 101/114 STENCILING
 101/129 .Processes

2 126/672 (0 OR, 2 XR)
 Class 126 : STOVES AND FURNACES
 126/569 SOLAR HEAT COLLECTOR
 126/634 .With means to convey fluent medium through
 collector

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126/651 ..Conduit absorber structure
 126/672 ...Circular nonmetallic conduit

2 164/122 (0 OR, 2 XR)
 Class 164 : METAL FOUNDRY
 164/1 PROCESS
 164/47 .Shaping liquid metal against a forming surface
 164/122 ..Controlling solidification (other than ambient cooling)

2 164/133 (0 OR, 2 XR)
 Class 164 : METAL FOUNDRY
 164/1 PROCESS
 164/47 .Shaping liquid metal against a forming surface
 164/133 ..Introduction control or manipulation of charge

2 164/900 (0 OR, 2 XR)
 Class 164 : METAL FOUNDRY
 164/900 RHEO-CASTING

2 165/46 (0 OR, 2 XR)
 Class 165 : HEAT EXCHANGE
 165/46 FLEXIBLE ENVELOPE OR COVER TYPE

2 174/260 (0 OR, 2 XR)
 Class 174 : ELECTRICITY: CONDUCTORS AND INSULATORS
 174/68.1 CONDUITS, CABLES OR CONDUCTORS
 174/250 .Preformed panel circuit arrangement (e.g., printed circuit)
 174/260 ..with electrical device

2 257/692 (0 OR, 2 XR)
 Class 257 : ACTIVE SOLID-STATE DEVICES
 257/688 .With large area flexible electrodes in press contact with opposite sides of active semiconductor chip
 chip and surrounded by an insulating element, e.g., ring
 257/690 .With contact or lead
 257/692 ..With particular lead geometry

2 257/712 (0 OR, 2 XR)
 Class 257 : ACTIVE SOLID-STATE DEVICES
 257/688 .With large area flexible electrodes in press contact with opposite sides of active semiconductor chip and surrounded by an insulating element, e.g., ring
 257/712 ..With provision for cooling the housing or its contents

2 257/738 (0 OR, 2 XR)
 Class 257 : ACTIVE SOLID-STATE DEVICES
 257/734 COMBINED WITH ELECTRICAL CONTACT OR LEAD
 257/737 .Bump leads
 257/738 ..Ball shaped

2 257/774 (0 OR, 2 XR)
 Class 257 : ACTIVE SOLID-STATE DEVICES
 257/734 COMBINED WITH ELECTRICAL CONTACT OR LEAD
 257/773 .Of specified configuration
 257/774 ..Via (interconnection hole) shape

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2 257/778 (0 OR, 2 XR)
Class 257 : ACTIVE SOLID-STATE DEVICES
257/734 COMBINED WITH ELECTRICAL CONTACT OR LEAD
257/778 .Flip chip

2 257/780 (0 OR, 2 XR)
Class 257 : ACTIVE SOLID-STATE DEVICES
257/734 COMBINED WITH ELECTRICAL CONTACT OR LEAD
257/780 .Ball or nail head type contact, lead, or bond

2 257/E23.008 (0 OR, 2 XR)
Class 257 : ACTIVE SOLID-STATE DEVICES
257/E23.001 PACKAGING, INTERCONNECTS, AND MARKINGS FOR
SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)
257/E23.003 .Mountings, e.g., nondetachable insulating
substrates (EPO)
257/E23.005 ..Characterized by material or its electrical
properties (EPO)
257/E23.008 ...Semiconductor insulating substrates (EPO)

2 257/E23.021 (0 OR, 2 XR)
Class 257 : ACTIVE SOLID-STATE DEVICES
257/E23.001 PACKAGING, INTERCONNECTS, AND MARKINGS FOR
SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)
257/E23.01 .Arrangements for conducting electric current
to or from solid-state body in operation, e.g., leads,
terminal arrangements (EPO)
257/E23.012 ..Consisting of lead-in layers inseparably
applied to semiconductor body (EPO)
257/E23.019 ...Consisting of layered constructions
comprising conductive layers and insulating layers,
e.g.,
planar contacts (EPO)
257/E23.021Bump or ball contacts (EPO)

2 257/E23.075 (0 OR, 2 XR)
Class 257 : ACTIVE SOLID-STATE DEVICES
257/E23.001 PACKAGING, INTERCONNECTS, AND MARKINGS FOR
SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)
257/E23.01 .Arrangements for conducting electric current
to or from solid-state body in operation, e.g.,
leads,
terminal arrangements (EPO)
257/E23.023 ..Consisting of soldered or bonded
constructions (EPO)
257/E23.06 ...Leads, i.e., metallizations or lead frames
on insulating substrates, e.g., chip carriers (EPO)
257/E23.072Characterized by materials (EPO)
257/E23.075Conductive materials containing organic
materials or pastes, e.g., for thick films (EPO)

2 257/E23.088 (0 OR, 2 XR)
Class 257 : ACTIVE SOLID-STATE DEVICES
257/E23.079 ..For integrated circuit devices, e.g., power
bus, number of leads (EPO)
257/E23.08 .Arrangements for cooling, heating, ventilating
or temperature compensation; temperature-sensing
arrangements (EPO)
257/E23.087 ..Fillings or auxiliary members in containers
or encapsulations selected or arranged to facilitate
heating or cooling (EPO)
257/E23.088 ...Cooling by change of state, e.g., use of

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heat pipes (EPO)

2 257/E23.092 (0 OR, 2 XR)
Class 257 : ACTIVE SOLID-STATE DEVICES
257/E23.079 ..For integrated circuit devices, e.g., power bus, number of leads (EPO)
257/E23.08 ..Arrangements for cooling, heating, ventilating or temperature compensation; temperature-sensing arrangements (EPO)
257/E23.087 ..Fillings or auxiliary members in containers or encapsulations selected or arranged to facilitate heating or cooling (EPO)
257/E23.09 ...Auxiliary members in containers characterized by their shape, e.g., pistons (EPO)
257/E23.092Auxiliary members in encapsulations (EPO)

2 257/E25.023 (0 OR, 2 XR)
Class 257 : ACTIVE SOLID-STATE DEVICES
257/E25.001 ASSEMBLIES CONSISTING OF PLURALITY OF INDIVIDUAL SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)

257/E25.002 ..All devices being of same type, e.g., assemblies of rectifier diodes (EPO)
257/E25.022 ..Devices having separate containers (EPO)
257/E25.023 ...Device consisting of plurality of semiconductor or other solid-state devices or components formed in or on common substrate, e.g., integrated circuit device (EPO)

2 359/2 (0 OR, 2 XR)
Class 359 : OPTICS: SYSTEMS
359/1 HOLOGRAPHIC SYSTEM OR ELEMENT
359/2 .Authentication

2 361/699 (2 OR, 0 XR)
Class 361 : ELECTRICITY: ELECTRICAL SYSTEMS AND DEVICES
361/600 HOUSING OR MOUNTING ASSEMBLIES WITH DIVERSE ELECTRICAL COMPONENTS
361/679 ..For electronic systems and devices
361/688 ...With cooling means
361/689 ...Fluid
361/699Liquid

2 361/761 (0 OR, 2 XR)
Class 361 : ELECTRICITY: ELECTRICAL SYSTEMS AND DEVICES
361/600 HOUSING OR MOUNTING ASSEMBLIES WITH DIVERSE ELECTRICAL COMPONENTS
361/679 ..For electronic systems and devices
361/748 ...Printed circuit board
361/760 ...Connection of components to board
361/761Component within printed circuit board

2 361/764 (0 OR, 2 XR)
Class 361 : ELECTRICITY: ELECTRICAL SYSTEMS AND DEVICES
361/600 HOUSING OR MOUNTING ASSEMBLIES WITH DIVERSE ELECTRICAL COMPONENTS
361/679 ..For electronic systems and devices

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361/748 . . . Printed circuit board
361/760 . . . Connection of components to board
361/761 Component within printed circuit board
361/764 Integrated circuit

2 361/820 (1 OR, 1 XR)

Class 361 : ELECTRICITY: ELECTRICAL SYSTEMS AND DEVICES

361/600 HOUSING OR MOUNTING ASSEMBLIES WITH DIVERSE

 ELECTRICAL COMPONENTS

361/679 . For electronic systems and devices

361/820 .. For semiconductor device

2 430/1 (2 OR, 0 XR)

Class 430 : RADIATION IMAGERY CHEMISTRY: PROCESS,
 COMPOSITION, OR PRODUCT THEREOF

430/1 HOLOGRAPHIC PROCESS, COMPOSITION, OR PRODUCT